### UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

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#### FORM 8-K

#### **CURRENT REPORT**

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

#### January 8, 2018

Date of Report (Date of earliest event reported)

#### Windtree Therapeutics, Inc.

(Exact name of registrant as specified in its charter)

#### Delaware

(State or other jurisdiction of incorporation)

#### 000-26422

(Commission File Number)

**94-3171943** (IRS Employer

Identification Number)

2600 Kelly Road, Suite 100 Warrington, Pennsylvania 18976 (Address of principal executive offices)

#### (215) 488-9300

(Registrant's telephone number, including area code)

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:
□ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425) □ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12) □ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b)) □ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 or Rule 12b-2 of the Securities Exchange Act of 1934.
Emerging growth company $\square$
If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. $\Box$

#### Item 7.01. Regulation FD Disclosure.

Executives of Windtree Therapeutics, Inc. (the "Company") plan to hold meetings with various investors, potential investors and analysts in San Francisco, California during the week of January 8, 2018 and plan to present the information contained in the presentation attached to this Current Report on Form 8-K as Exhibit 99.1.

The furnishing of the attached presentation is not an admission as to the materiality of any information contained therein. The information contained in the presentation is summary information that is intended to be considered in the context of more complete information included in the Company's filings with the Securities and Exchange Commission (the "SEC") and other public announcements that the Company has made and may make from time to time by press release or otherwise.

Pursuant to General Instruction B.2 of Form 8-K, the information in this Item 7.01 of this Current Report on Form 8-K and Exhibit 99.1 attached hereto are being furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that Section, nor is it to be incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, regardless of any general incorporation language in such filing, except as shall be expressly set forth by specific reference in any such filing.

#### Item 9.01. Financial Statements and Exhibits

- (d) Exhibits:
- 99.1 Windtree Therapeutics, Inc. Presentation dated January 2018.

#### **Cautionary Note Regarding Forward-looking Statements:**

To the extent that statements in this Current Report on Form 8-K are not strictly historical, including statements as to business strategy, outlook, objectives, future milestones, plans, intentions, goals, future financial conditions, future collaboration agreements, the success of the Company's product development, cash flows, future revenues, the timing of planned clinical trials or otherwise as to future events, such statements are forward-looking, and are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. The forward-looking statements contained in this Current Report are subject to certain risks and uncertainties that could cause actual results to differ materially from the statements made. Such risks and others are further described in the Company's filings with the Securities and Exchange Commission including the most recent reports on Forms 10-K, 10-Q and 8-K, and any amendments thereto. Any forward-looking statement made by us in this Current Report on Form 8-K is based only on information currently available to us and speaks only as of the date on which it is made. The Company undertakes no obligation to publicly update any forward-looking statement, whether written or oral, that may be made from time to time, whether as a result of new information, future developments or otherwise.

#### **SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Windtree Therapeutics, Inc.

By: /s/ Craig Fraser

Name: Craig Fraser

Title: President and Chief Executive Officer

Date: January 8, 2018





Corporate Presentation January 2018

OTCQB:WINTD

#### Forward-looking Statement

To the extent that statements in this presentation are not strictly historical, including statements about the Company's clinical development programs, business strategy, outlook, objectives, plans, intentions, goals, future financial conditions, future collaboration agreements, the success of the Company's product development activities, or otherwise as to future events, such statements are forward-looking, and are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. The forward-looking statements contained in this presentation are subject to certain risks and uncertainties that could cause actual results to differ materially from the statements made. These risks are further described in the Company's periodic filings with the Securities and Exchange Commission (SEC), including the most recent reports on Forms 10-K, 8-K and 10-Q, and any amendments thereto ("Company Filings")

Under no circumstances shall this presentation be construed as an offer to sell or as a solicitation of an offer to buy any of the Company's securities. In addition, the information presented in this deck is qualified in its entirety by the Company Filings. The reader should refer to the Company Filings for a fuller discussion of the matters presented here.



#### Windtree Therapeutics

- Public, small cap biopharmaceutical / medical device company
- Based in Warrington, PA with approximately 27 employees
- Focused in the acute respiratory area with a lead program expected to address a significant need and expand the Respiratory Distress Syndrome (RDS) in premature infants market (currently valued at ~\$400 million\*)
- Windtreetx.com





#### Respiratory Distress Syndrome (RDS)

**Primary characteristic is surfactant deficiency** in underdeveloped lungs of premature infants (born with a lack of natural lung surfactant required for open airways and proper gas exchange  $-O_2$  in and  $CO_2$  out)

American Academy of Pediatrics guidelines recommend providing surfactant replacement within the first hours of life<sup>1</sup>

Neonatologists believe the highest unmet need in RDS is the ability to deliver surfactant noninvasively to patients<sup>2</sup>





- 1. AAP guidelines, 2013
- 2. WINDTREE primary market research (2014)

#### **Current RDS Treatment Pathways**



Initial treatment options include invasive and non-invasive methods:



#### Surfactant Therapy

Invasive mechanical ventilation (IMV)

- · Animal-derived surfactant
- Delivered via intubation, usually in combination with mechanical ventilation
- Requires sustained intubation
- Supports breathing until patient can be weaned

nCPAP Support until presumptive endogenous surfactant production

- Non-invasive nasal delivery of continuous positive airway pressure (nCPAP)
- Supports breathing until the infant can be weaned

#### **TRADE-OFFS**

Timely therapy delivery vs.
Exposure to known significant

complications

Avoid exposure to known significant complications

vs.

Cannot deliver surfactant and risk failure



>50% are intubated and ventilated



#### Clinicians Seeking a NonInvasive Way to Deliver Surfactant

#### What is wanted1:

- ✓ Avoid the risks and complications associated with delivery of surfactant therapy via intubation and mechanical ventilation
- ✓ Possibility of repeat doses
- ✓ Avoid clinical instability associated with administration of liquid surfactant bolus administration
- ✓ Enable administration by nonspecialist staff
- ✓ Reduce cost of treating premature infants



"...optimization of less invasive method of surfactant administration will be one of the most important subjects for research in the field of surfactant therapy of RDS in coming years".

Kribs A. How best to administer surfactant to VLBW infants. Arch Dis Child Fetal Neonatal Ed 2011;doi:10.1136.



1. Pillow & Minocchieri: Neonatology, 2012

#### Windtree Technology Platform - AEROSURF®

Potential to Provide Both Non-Invasive and Invasive Solutions to Treat RDS

Proprietary Synthetic KL4 Surfactant

+

Designed to be structurally similar to human lung surfactant

Liquid KL4 surfactant (intratracheal instillate) for RDS approved by the FDA

Lyophilized (freeze-dried) KL4 surfactant – currently being developed for AEROSURF®









Proprietary Innovative Aerosol Delivery System (ADS)

Designed specifically to aerosolize and deliver KL4 surfactant



-

#### Transformative Potential of AEROSURF®

#### Surfactant Therapy

Reversing surfactant deficiency has a profound positive impact on respiration

> Surfactant therapy delivers near-immediate clinical improvement

#### BPD

Infection, ventilator-induced pneumonia

Bradycardia, hypertension, and hypoxemia

Peri-dosing events associated with bolus administration

Airway trauma Lung injury

Pain, discomfort

Long-term impacts including vocal
cord damage, asthma, lung damage

#### nCPAP Respiratory Support

Avoids exposure to the risks of invasive delivery of surfactant therapy

Negative impacts of delayed surfactant replacement therapy (SRT)

Prolonged RDS until either endogenous surfactant production or transfer to invasive surfactant therapy

Significant rate of nCPAP failure leading to delayed surfactant therapy via intubation and mechanical ventilation

#### The potential for AEROSURF

The benefits of traditional surfactant therapy without the complications associated with intubation and mechanical ventilation

Noninvasive administration eliminates or reduces the need to delay surfactant therapy

Synthetic formulation



Reduced morbidity

Lower total cost of care

d mechanical

RISKS

BENEFITS

#### Potential Drivers of AEROSURF® Opportunity



# #1 stated unmet need in RDS

"Noninvasive surfactant delivery" = 54% top, unaided response (3x higher than next response)

# 20-30% reduction in nCPAP failure is meaningful

Results in >40% reported, expected patient share<sup>1</sup>

#### **1** Price (but ↓ Total Hospital Cost)

Potential for positive health economics related to noninvasive approach, cost avoidance, etc.<sup>2</sup>

# Market Expansion

Potential to bring surfactant therapy to new, lower skilled and less certified hospitals and geographies due to non-invasive, less specialized delivery<sup>3</sup>

- 1. N=278 Neonatalogists, US & EU; WINDTREE primary market research (2014)
- 2. WINDTREE primary market research (2014)
- 3. Windtree research and estimates



#### Significant RDS Global Revenue Opportunity



8 to 10 Million Low Birth Weight Children Born Every Year Globally

Regions	Estimated 2016 Annual Revenue Invasive surfactant therapy only <sup>†</sup>		
US	\$90 million		
EU/ME	\$85 million		
LATAM	\$95 million		
China / Asia	\$115 million		
GLOBAL	~\$400 million		

- Only 50% to 60% of RDS patients currently treated with surfactant therapy
- Opportunity to expand treatment population due to easier, non-invasive approach enables delivery in less specialized centers
- Positive pharmacoeconomic value supports higher price

\$800MM -\$1B AEROSURF® Potential



CDC National Vital Statistics; UNICEF data; Windtree market research; IMS MIDAS data; private companies with access to government purchasing records for Latin America, China and Middle East

# Medical Device and Device Studies



#### Innovative Aerosol Delivery System (ADS)



Proprietary Innovative Aerosol
Delivery System (ADS)

Designed specifically to aerosolize and deliver KL4 surfactant



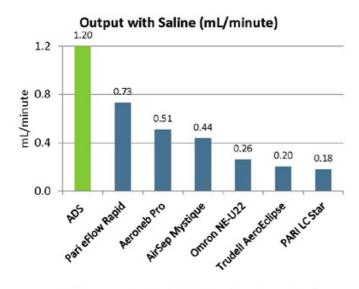
- AEROSURF® innovation made possible by novel medical device
- Unique aerosol delivery system (ADS) technology utilizing pressure and heated capillary has demonstrated ability to break through the barrier to effectively aerosolize KL4 surfactant
- Controlled, effective and reproducible performance validated in bench comparative studies and in the lung deposition study
- Developed in partnership with Battelle Memorial Institute

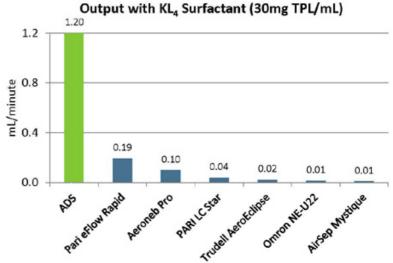


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#### ADS Technology Provides Better Output Rate Aerosolizes surfactant as well as saline

#### Aerosol output rate





Saline output of ADS technology is close to double the next best technology tested

KL<sub>4</sub> surfactant output of ADS technology is six times the next best technology tested

13

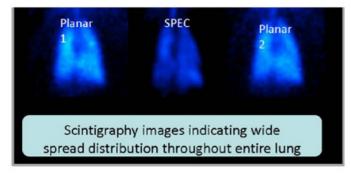
Unlike other available aerosol technologies, the ADS system produces more particles in the optimal 1 to 3µm range than a commercially available vibrating mesh nebulizer, and delivers a consistent KL4 surfactant aerosol output, minute by minute, device after device



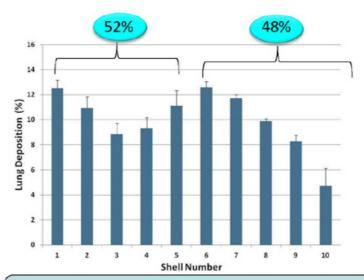
Source: Windtree - Data on file.

#### Lung Deposition Study in Non-Human Primates

- Use of non-human primates (cynomolgus macaques) Nose, throat, & lung anatomy comparable to infants; respiratory function similar to preterm infants
- Radiolabeled KL4 surfactant aerosolized using Aerosol Delivery System (ADS), delivered via nasal cannula in 3-10 min exposures inhaled from a nCPAP circuit
- Measured total & regional pulmonary deposition by a series of gamma images with SPECT data used to determine regional lung deposition using a quantitative model



#### **Total Deposition Across 10 Equal Shells**



Drug deposition observed across all areas of the lung after 3 to 10 min of inhalation demonstrating generally uniform distribution of drug between the inner half and the outer half of the lungs



Windtree data on file

# AEROSURF® Clinical Studies



#### AEROSURF® Phase 2 Program Components

Study / Activity	Rationale / Objective	Status
Phase 2a	Initial safety & tolerability (29-34 wk gestational age (GA))	Completed
2a Expansion	Extending the dose range in 29-34 wk GA	Completed
Phase 2a	Safety and tolerability in 26-28 wk GA	Completed
Phase 2b	28 – 32 wk GA - Dose and evidence of clinical effect	Completed
Other Studies:		
Observational Study	Understand treatments and outcomes for our target population	>2000 pts data collection complete
Lung Deposition Study	Assess inhaled surfactant distribution in non-human primate lungs	Completed
Other Activities:		
Licensing in Asia	Access ex-US opportunity and development support with Lee's	Completed
Device Development	Design verification, validation (DV) and clinical experience with next generation, phase 3 and commercial device	DV on Track for 1H 2018
FDA Interaction	Confirm strategic direction and operational approach	Successful Type C meetings as well as Fast Track Designation

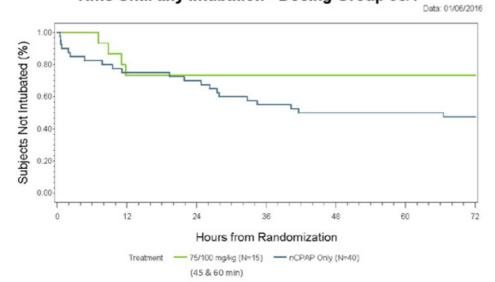


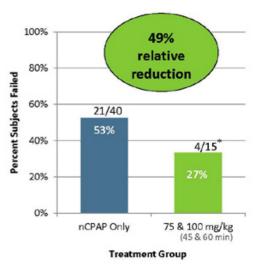
#### Phase 2a Study (29 to 34 wk GA)

45 and 60 Minute Dose Groups - nCPAP Failure through 72 hours

Time to nCPAP Failure







At 72 hours post-dosing, 27% of AEROSURF® patients in the combined 45 and 60 minute dose groups required intubation compared to 53% in the control group; a relative reduction in nCPAP failure of 49%



\* One intubated patient excluded due to being inappropriately enrolled

#### AEROSURF® Phase 2a Study in 26-28 week GA

#### Safety and Tolerability Assessment

- The FDA requested that we conduct a separate safety study in smaller premature infants before including them in blinded studies
- Multicenter, randomized, open-label, controlled study in 48 premature infants 26 to 28 weeks GA receiving nCPAP for RDS to evaluate the safety and tolerability of aerosolized KL4 surfactant administered in three escalating doses (8 treatment, 8 control per dose group)
- The primary objective of the study was successfully met. The safety and tolerability profile of AEROSURF® remains generally comparable to the nCPAP control group across gestational ages
  - The safety profile of AEROSURF in younger GA neonates allows this group to be included in AEROSURF trials going forward
  - 26-27 week GA neonates are more surfactant deficient and may require additional surfactant administration. The phase 2 safety profile will allow us to administer more surfactant to babies that need it
- Despite limited treatment numbers, we observed a positive early effect on prolonging the time to intubation (a consistent finding across studies) as well as signs that nCPAP failure can be reduced in this GA range and believe we have a dose identified to produce the desired effect in clinical studies moving forward



## AEROSURF® Phase 2a in 26-28 week GA - Potentially Important Observation Related to Bronchopulmonary Dysplasia (BPD)

BPD	Rate	Patients
AEROSURF	0%	0/24
Control	25%	6/24

- Bronchopulmonary Dysplasia (BPD) or chronic lung disease of the newborn is one of the most common complications of prematurity and RDS treatments. It occurs in up to 40% of infants born at or before 28 week GA who have required intubation, mechanical ventilation and oxygen therapy.
- BPD is associated with ongoing pulmonary disease, neurodevelopmental impairment and increased healthcare utilization.
- Despite its importance, effective prevention and treatment strategies for BPD have been elusive and there are no approved treatment.
- BPD contributes to substantial patient morbidity and healthcare costs.
- Decreasing BPD would address a significant unmet medical need and represents an upside scenario in our outlook. Additional study is warranted within our future RDS trials.



JAMA 2016; 316 (6); 611-624; JAMA Pediatric 2015; 169 (8); 731-739

#### AEROSURF® Phase 2b Study (28 to 32 wk GA)

#### **Trial Objectives**

- Evaluate safety and tolerability
- · Demonstrate efficacy
- Determine effect size for phase 3 planning
- Dose(s) selection for phase 3
- Evaluate and further develop our Phase 2 prototype device performance

#### Trial Design

- 3 dose groups:
  - ✓ 25 minute, 40mg/kg (up to 2 repeat doses)
  - √50 minute, 80mg/kg (up to 2 repeat doses)
  - ✓ nCPAP alone Control
- Up to 240 (80 per group) total
- Treatment assignment was blinded
- Infants with RDS between 28-32 wk GA

#### 221 Patients Enrolled



#### 47 sites enrolled:

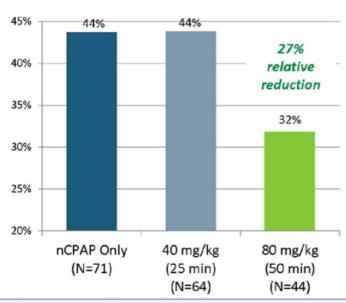
• (	JS	17
• (	Canada	3
• P	oland	9
• 1	Netherlands	1
•	lungary	6
• 1	reland	1
• (	Chile	7
• (	Colombia	3



#### AEROSURF® Phase 2b Incidence of nCPAP Failure

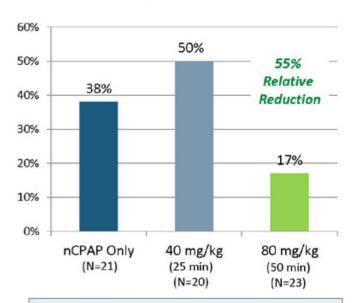
Preplanned mITT Without Treatment Interruptions Demonstrates Targeted Reduction 1

#### All Sites



AEROSURF® treated patients in the 50 min dose group without treatment interruptions experienced a 12% absolute reduction or a 27% relative reduction in nCPAP failure compared to control

#### US Only (to compare with 2a)

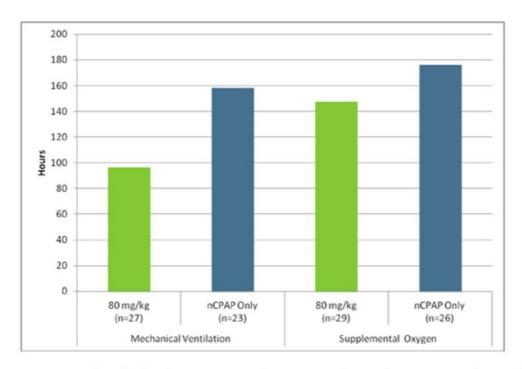


AEROSURF treated patients in the 50 min dose group experienced a 21% absolute reduction or a 55% relative reduction in nCPAP failure compared to control



1) The planned top line analysis of the primary endpoint did not show the intended effect due in large part to treatment interruptions in certain patients caused by specific lots of disposable cartridge filters used in the phase 2 prototype device that had a higher tendency to clog

# AEROSURF® Phase 2b - Potential for Reduced Respiratory Support in Patients Who Failed nCPAP When on AEROSURF



In patients who failed nCPAP and required intubation and mechanical ventilation, AEROSURF treated patients appeared to require shorter duration of mechanical ventilation and time on supplemental oxygen



#### **Phase 2b** - Safety & Tolerability Profile Similar for Treatment and Control Populations

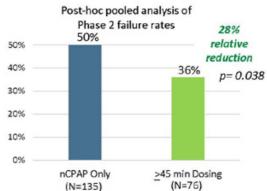
- The adverse event and serious adverse event profile was similar across the 3 groups
- Complications of prematurity were also similar

	40 mg/kg (25 min)	80 mg/kg (50 min)	nCPAP Only
Acquired Sepsis	12 ( 18% )	13 ( 20% )	16 ( 25%)
Air Leak	7 (11%)	5 (8%)	9 (14%)
Apnea	29 ( 44% )	23 ( 35% )	24 ( 38%)
PVL	1 ( 2%)	1 ( 2%)	1(2%)
PDA	18 (27%)	22 ( 33%)	22 ( 34%)
IVH	8 ( 12%)	9 ( 14%)	9 (14%)
NEC	1 ( 2%)	7 ( 11% )	6 (9%)
ROP	2 ( 3%)	6 ( 9%)	2 ( 3%)
BPD	7 ( 10%)	8 ( 11% )	9 (13%)
Alive without BPD	58 (83%)	57 (79%)	53 ( 75% )



#### Summary of Efficacy Signals in the Phase 2 Program

Post-hoc pooled analysis of patients in the phase 2 program (3 studies) treated in doses ≥ 45 minutes dosed as intended (uninterrupted) shows a notable reduction in nCPAP failure with AEROSURF® treatment compared to nCPAP controls



- Beneficial effects reproduced across the phase 2 program when the dose is delivered as intended
  - 2b results are consistent with previous data from the 2a study in 29-34 week GA infants (49% relative reduction in nCPAP failure for combined 45 and 60 minute doses)
- Phase 2a in 26-28 week GA infants also observed an important potential effect on development of BPD with 0% (0 of 24) in treated infants versus 25% (6 of 24) in control
- AEROSURF patients in the phase 2b study failing nCPAP required less time on oxygen and fewer days on mechanical ventilation



## Evolution of Aerosolized Delivery System (ADS) from Phase 2 to the Next Generation, Phase 3 / "Go to Market" Device

#### Phase 2



- 2012 2017
- Developed in conjunction with Battelle Memorial Institute (Battelle)
- Designed and used in prior phase 2 clinical experience
- · Battelle manufactures for phase 2 trials

#### Phase 3 / Commercial



- 2018 and beyond
- Developing in collaboration with Battelle
- Designed for use in the phase 3 clinical trial and commercial application



## Complete Device Development and Transition to Next Generation ADS in 2Q 2018

#### **Next Generation ADS Features**

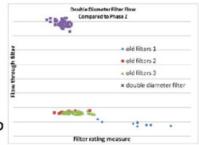
- Designed to utilize the same aerosol delivery technology to match important aerosol characteristics of emitted dose and particle size of the phase 2 device for bridging
- Enhanced ergonomics and user interface:
  - · Faster start-up and change-over
  - Built in step by step instructions with detailed images, if needed
- Simplified disposable set up to help prevent incorrect assembly and inadvertent re-use
- Enhanced controls and dose monitoring
- Modular design for easier maintenance, etc.

#### **Addressing Filter Clogging**

- Filter diameter doubled
  - Surface cross section increased by 4x



- New specifications for minimum flow through filter
- Modified design/assembly to reduce restrictions



- Test results thus far:
  - ~50 consecutive runs as part of engineering studies and design verification completed without filter clogging



#### AEROSURF® Clinical Development Next Steps for 2018

#### Generate the strongest possible position and transition to phase 3

### Execute a Bridge Study to transition the new, Next Gen device in order to meet the following objectives:

- 1. Demonstrate adequate, consistent performance for the new Next Gen device
  - Beyond Device Design Verification and bench performance study, Windtree learns from actual "in-clinic" experience to ensure no issues
- 2. Sites gain experience with procedure and new device prior to FPI phase 3
- 3. Generate additional supportive 50 min dose data (and more intensive dosing)
  - Fourth data set at high dose is expected to provide data on safety of more intensive dosing and to augment phase 2b data that was impacted by removal of treatment interruptions in the pre-planned mITT



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#### AEROSURF® Bridge Study

- Blinded study; nCPAP alone as control versus adding AEROSURF® treatment
- GA range: 26-32 weeks
- N=70 planned (35 per group) in a design similar to phase 2b
- ~20-25 select sites
  - represent the best previous study sites for enrollment and execution in phase 2 (predominately U.S. sites)
- Timing: 3 quarters in study duration starting in Q3 2018

- Dose: 50 min. with up to 4 repeat doses;
   minimum 20 minute wait between doses
  - Ph2b was 50 min. high dose, 2 repeats possible with a 2 hour wait between doses
- FiO<sub>2</sub> ≥ 25% to qualify, >21% for repeat dosing to allow infants to receive more treatments
- Key Measures:
  - CPAP failure assessed at 72 hours and 28 days
  - Next Gen Device performance
  - Safety and tolerability
- Bridge Study not powered for significance, however we would like to show magnitude of effect >20%



#### Program Evolution and Changes Intended to Increase the Probability of Technical Success and Continue to Strengthened Data

- We have reproduced positive results in our Phase 2a and Phase 2b and have learning's to apply in trial design and execution
- Utilize the Next Gen ADS which is designed to mitigate the risk of filter related treatment interruptions
- Next Gen device features may support clinical outcomes:
  - Faster to use (time to initial treatment is believed to be meaningful)
  - Easier to use (human factor associated with the device experience may affect clinical decision making and resulting data)
- Given safety profile we are continually seeking to optimize dosing:
  - · Only studying high dose
  - Decreasing interval from 2 hours to 20 min. between doses with additional repeat doing possibilities
- FiO2 at 25% for inclusion, >21% for repeat allows more infants to receive clinically needed repeat dosing
- Executing in our best sites (in the U.S. and select Poland)



# Other Potential Development Activities

- Lyophilized Lucinactant (LS)
  - Preclinical Activities



### Lyophilized Lucinactant A Second Asset Can Expand the Opportunity

#### Lyophilized Lucinactant LS



#### **Characteristics**

- Lyophilized dosage form of our KL4 surfactant drug product that was previously approved by the FDA as a liquid dosage form
- Currently used in AEROSURF® development program
- Improvements and benefits (besides being fully synthetic vs. animal-derived) include lower viscosity, stability expected at 3 years+, cold chain but no need for warming, potential for room temperature in clinic stocking

#### **Development Plan**

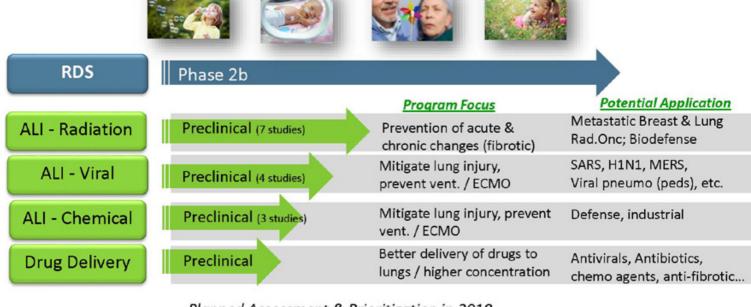
- Plan for Phase 3 in RDS (liquid bolus application)
  - Obtain regulatory advice on trial design and approval requirements in 1H 2018
- Potential to develop for other future indications where aerosolized KL4 is not indicated (i.e., where patient are intubated for their condition, etc.)

#### Value to Windtree

- Strengthen RDS position as a provider for all surfactant needs and compete in 100% of market and clinical pathways (noninvasive and invasive)
- May enhance Windtree's RDS offering with a second product based on the same drug being studied in AEROSURF and previously approved as SURFAXIN®
- LS for bolus application gives Windtree a platform for non-aerosolized applications



#### Leverage our Innovative Technology to Advance Acute Pulmonary Disease Care and Outcomes Beyond RDS



#### Planned Assessment & Prioritization in 2018

Acute Asthma

Lung Transplant Severe Pneumonia

ECMO Liberation Post Surgical Adhesion

Chronic Sinusitis Cystic Fibrosis

COPD

+ Others?

### Platform Exclusivities Broad Multi-Faceted Exclusivity Portfolio

#### **Regulatory Exclusivities**

• Orphan Drug Designation in RDS for the U.S. and EU

# EUROPEAN MEDICINES AGENCY

#### **Patents**

- Lyophilized KL4 Surfactant Portfolio to 2033
- Aerosol Delivery System Portfolio through 2031+

#### **Trade Secrets/Know-How**

- Methods of Manufacture
- Non-USP Analytical Processes



#### **Potential Challenges to Generic Entry**

 Conventional bioequivalence studies are not relevant as Surfactants are Non-Receptor Based



#### 2017 - A Productive Year for Windtree



WINDTREE

#### 2018 Objectives





Complete Device Development delivering an extremely consistent, high performing Phase 3 / "go to market" drug delivery platform





Solid execution in the clinic with the Bridge Study





AEROSURF and Lyo Lucinactant LS

Global Regulatory Clarity and employed
in development





Successful funding supporting a financially healthy organization

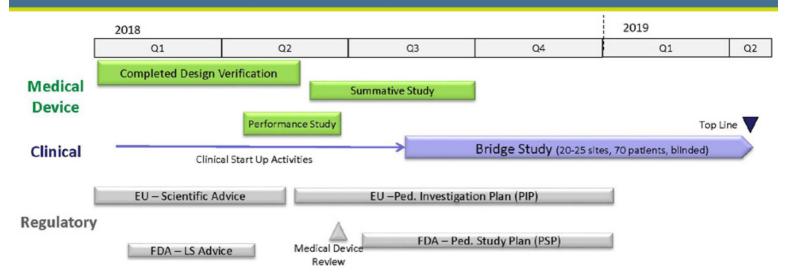




Investment / Portfolio Diversification



#### AEROSURF® Development and Deliverables Overview



#### 1H 2018

- Next Gen Device DV
- ✓ Device Performance Study results
- ✓ Bridge Study (and Summative Study) start-up
- ✓ Regulatory Milestones:
  - EMA Scientific Advice
  - FDA Device
  - FDA Lyo Lucinactant LS
- Complete financial restructure initiative

#### 2H 2018 / Mid-2019

- ✓ Bridge Study top-line data
- ✓ FDA End of Phase 2 Meeting
- ✓ Summative Study results
- ✓ EU PIP
- ✓ FDA PSP
- ✓ Ph 3 start-up



Note: The above schematic represents Windtree's current business planning, execution and intent. Start and completion timing for many activities are dependent upon the timely competed of other tasks (IE. study start dependent on device availability) and sufficient available funds.

#### Value Creating Potential



- Potentially transformative therapy addressing both the unmet efficacy and safety needs in the important, acute neonatology market
- Multiple phase 2 clinical trials producing and replicating efficacy while continuing to build safety and tolerability data base
- Developing positive health economic position as well as opportunity to expand the use of surfactants due to easier, less specialized administration
- Broad IP with potential to build a pipeline of KL4 surfactant therapies to address a variety of respiratory diseases
- Fast Track and Orphan designations
- Part of a highly capable, diverse, global pharmaceutical company committed to the build and growth of Windtree



#### Windtree Therapeutics



"Striving to deliver Hope for a Lifetime!"

